

III. Public Access and Water Supply Protection

The DCR-OWM uses five main bodies of information in developing and updating its public access policies: 1) The Division's goals of public drinking water protection and public health protection (discussed in **Section I**); 2) Guiding state and federal legislation and regulations related to public access on drinking water supply lands (discussed in **Section I**); 3) Literature review; 4) Public input; and 5) Resource allocation constraints. This Section will discuss literature review, public input, and resource allocation constraints.

A. Literature Review

The influence of recreational public access on land and water resources is a function of several factors: the actions of dozens, hundreds, or thousands of individual users; the timing, location, site characteristics, and duration of each use; as well as the interactions between use.

Four characteristics of public access activities are related to water quality impacts:

- 1) Activities that have body contact with the water are more likely to negatively impact water quality.
- 2) Activities that have a high frequency of use are more likely to negatively impact water quality.
- 3) Activities that involve long periods of stay are more likely to negatively impact water quality.
- 4) Activities that are concentrated spatially or temporally at sensitive locations or time periods are more likely to negatively impact water quality.

The scientific literature provides evidence of impacts to water quality by popular recreational uses such as swimming, motor boating, and horseback riding. However, many region-specific activities have not been the focus of scientific research. A synthesis of the literature (Dissmeyer, 2000) identifies at least six types of water quality impacts recognized as being associated with recreational activities **Table 8**.

Table 8 Types of Public Access Impacts to Water Quality

Impact Type	Primary Cause	Source	Water Quality Effect
Sediments and Turbidity	Erosion; Storm-water	Parking areas, shoreline trails, fishing spots, boat landing areas, unauthorized trails	Turbidity, release of nutrients to water, transport pathogens, interfere with disinfection.
Nutrients (nitrogen and phosphorus)	Human and animal waste; erosion materials	Visitors	Increased nutrients, increase biochemical oxygen demand and thus reduces dissolved oxygen levels which facilitates eutrophication. Increased levels of disinfection by-products.
Pathogens	Direct body contact with water; fecal material from humans or domestic animals	Visitors	Increased levels of fecal contamination; increased risk to public health – morbidity and mortality.
Chemicals	Motors, transportation,	Parking lots, boat motors, visitors, transportation accidents	Increased concentrations, unknown negative health effects, interference with disinfection.
Trash	Visits	Visitors	Release of chemicals, nutrients, and pathogens during decomposition.

Source: NYC/DEP, 1999

B. Public Input

1. Workshops and Public Hearing

April 12, 2005 – Belchertown MA

On April 12, 2005, DCR-OWM hosted a workshop in Belchertown, to gather public input on the Division's policies related to public access in the Quabbin Reservoir Watershed before the Division began its policy update. The workshop was moderated by a professional.

Approximately forty people were in attendance. Twenty-one completed surveys were submitted to the Division immediately after the workshop.

Approximately thirty-one people spoke at the meeting. In general, each speaker addressed one topic. Overall, fourteen different topics were brought up. The five most popular topics were: horseback riding, pristine wilderness, water protection for drinking water, closing down motor boat access; and allowing cross-country access. The topics in themselves show the inherent conflict between user groups. One speaker observed that they could all easily "Love Quabbin to death". In addition to specific comments about specific access activities, the public made a number of supportive comments related to the current policies, and the DCR-OWM's role in managing the resources. Four main themes emerged from the workshop:

- 1) Desire for flexibility within the access policies related to time and geographic areas;
- 2) Request for more equitable access (e.g., motorboat users have to pay parking fees but visitors at Visitor Center do not);
- 3) Recognition of the difficulty in balancing competing interests;
- 4) Overall love of the Quabbin.

October 13, 2005 – Petersham, MA

On October 13, DCR hosted its second public workshop to gather public input on the Division's policies related to public access following the Division's preliminary work on policy updates. The workshop was moderated by a professional moderator. Approximately 40 people were in attendance. Three people completed the surveys distributed at the workshop.

Approximately 35 people spoke at the workshop, bringing up over eighteen different topics. The five most popular comments were related to: water quality; biking access; inconsistencies between policies; and horseback riding. These comments were markedly different from the comments made at the April workshop in Belchertown. Some participants appeared to be unclear about drinking water supply protection strategies, how drinking water can be contaminated, and the public health implications. In addition, there seemed to be a greater interest in preservation as it relates to the public access experience. The workshop participants complimented the DCR's work in general and related to the public input process. Several people stood up to thank staff for setting up the workshop. Overall, three themes emerged from the comments:

- 1) Perceived inconsistencies related to recreational impacts and logging impacts;
- 2) Value of the landscape;
- 3) Confusion about watershed management/drinking water supply issues.

January 19, 2006 - Belchertown, MA: Public Hearing and Comment Period

The OWM-Quabbin Section hosted a Public Hearing for all stakeholders on January 19th, 2006, in Belchertown, MA. The OWM published meeting notices in the Environmental Monitor and the DCR website in December 2005. The OWM also sent out email and letter notification to over 150 individuals and stakeholders. At the meeting the public was unanimously supportive of the DCR's efforts to balance drinking water protection with public pressure for public access. The month long public comment on the draft plan ended on February 3, 2006. The public input is detailed in **Appendix C**.

2. Surveys

Abutter and Stakeholder Survey – March – June 2005

The OWM-Quabbin Section kicked off its public access management plan update process in Spring 2005 by distributing a survey to 137 stakeholders (e.g., watershed community officials, legislators, environmental groups) and 527 abutters (people owning land within 3 meters of Quabbin Reservoir watershed lands). Surveys were mailed in March along with an April public workshop announcement; 29 surveys were undeliverable. 25 surveys were submitted at the workshop. 660 surveys were distributed. By the end of May, 187 responses had been received (a 28% return rate).

Respondents ranged in age from 17 to 87, with a mean age of 54. Of those indicating their gender, 96 (51.6%) were male and 90 (48.4%) female. The vast majority of respondents (approximately 97%) were from Massachusetts, five were from other states. Sixty percent of respondents (107 people) indicated that they live in the Quabbin watershed, with most of them (134 respondents or 77%) living there for more than 10 years.

Overall, the respondents were very knowledgeable about the DCR consolidation, the OWM's public access management plan, and related regulations. The majority of respondents had personal knowledge of and experience at the Quabbin. Only 8 of 186 respondents had never visited the reservation. Of those that had, the average number of visits per year was 17 (maximum 400), and the average number of hours per visit was 3 (maximum 12).

A majority of the respondents did not know that OWM is funded by MWRA, that revenue is generated by DCR through forest management, and that Payments In Lieu of Taxes (PILOT) are made to the watershed communities.

When asked what they personally considered to be the most important values of the Quabbin Reservoir and Watershed, respondents ranked Public Water Supply as the most important. Solitude/Wilderness Character was ranked as second most important followed by Public Access/Recreation, and Healthy Forest/Wildlife.

Several trends emerged when the respondents were asked what activities they engage in, what they think should be allowed, and what they think should be prohibited. The most popular activities that people engaged in were Hiking/Walking, Bird Watching, Driving, Sightseeing, and Road Bicycling. When asked what should be allowed, more than 100 of 183 respondents listed:

Hiking/Walking; Bird Watching; Snowshoeing; Canoeing; Road Bicycling; Cross-country Skiing; Kayaking; Shore-fishing On-reservoir; Ice-fishing Off-reservoir; Boat-fishing On-reservoir; Driving/Sightseeing; and Mountain Bicycling. OWM policy allows these all activities, with some restrictions and limitations. The difference between what people actually do and what they think should be allowed suggests an “existence value” for those activities that respondents support, but do not actually participate in.

When asked what should be prohibited, more than half of the respondents listed: Operating ATVs; Collecting; Camping; Swimming; Snowmobiling; Trail-marking; Geocaching, Horseback Riding, Fundraising and Dog Walking. Current OWM policy prohibits all these activities with the exception of Snowmobiling, which is allowed on certain off-reservation lands at certain times. In general, when compared to our public workshop input, survey input indicates less demand for cross-country skiing and dog walking. However, general comments indicate public consternation with the apparent illogic—from a water quality perspective—of allowing motorboats for fishing while prohibiting sailboats and kayaks for recreating on the reservoir.

Finally, concerning the current public input process, the respondents indicated there were two areas in which the DCR could improve its process: 1) more media coverage of planning efforts, including local newspapers and internet; and 2) more educational outreach effort related to planning topics.

In conclusion, while results indicate that DCR needs to better explain its efforts in the watershed community (e.g., PILOT payments), survey respondents recognize the values of Quabbin as a public water supply, as well as its value from natural resource protection and recreational standpoints. Further, many respondents, especially abutters, were very appreciative of the information and personal contact provided by the survey mailing.

Visitor Survey - June-October 2005

The OWM-Quabbin Section conducted an informal visitor survey to collect public input related to its current access policies and future changes from people not necessarily affiliated with organized recreational groups. Staff selected nine locations on DCR property to install survey boxes for visitors from June through October 2005. The Watershed Rangers monitored the survey boxes. By November 1, 2005, 217 surveys were returned to the DCR office. Overall, the survey respondents were generally knowledgeable of the OWM consolidation, its public access management plan, and related regulations. However, the majority of visitor respondents had little to no knowledge about three critical components of the organization: 1) OWM funding through MWRA from ratepayers; 2) revenue generated by DCR through forest management; and 3) Payments In-Lieu-of Taxes (PILOT) made to watershed communities.

When asked about the most important personal values of the Quabbin Reservoir Watershed System, respondents ranked Public Water Supply as the most important value followed by Quabbin’s value of Solitude/Wilderness Character and Public Access/Recreation.

General Summary:

- Overall, the respondents were very knowledgeable of the OWM, its existing public access management plan, and related recreational access regulations. The majority of

respondents (97%) had direct knowledge of the Quabbin. On average, they had visited 38 times/year in 2004 and had spent 4 hours per visit.

- Hiking/Walking was the most popular recreational activity. Birdwatching and Boatfishing were other frequent recreational activities.
- The values of Quabbin to respondents were very evident in the survey findings. While the majority of visitors were knowledgeable of Quabbin's main function as a public drinking water supply, other important values of the Quabbin listed were: Solitude/Wilderness Character; Public Access/Recreation; and Healthy Forests/Wildlife.
- The current prohibitions on three activities were clearly supported by the majority of the respondents: 1)(Operating ATVs, 2) Swimming, and 3) Camping.

3. Advisory Committees

Quabbin Watershed Advisory Committee (QWAC)

The Massachusetts legislature passed an act creating the Quabbin Watershed Advisory Committee (QWAC) under MGL 92 Section 114. Effective July 1, 2003 this act was modified by MGL 92A ½, Section 13 to reflect changes due to the reorganization of MDC into DCR (see **Appendix A**). QWAC is composed of 11 members representing: the Massachusetts Council of Sportsmen, Trout Unlimited, the Quabbin Fisherman's Association, the Worcester County League of Sportsmen, the North Worcester County Quabbin Anglers, the Massachusetts Audubon Society, the Swift River Valley Historical Society, the Massachusetts Wildlife Federation, the New England Sierra Club, and the Friends of Quabbin, Inc., and a member from the general public appointed by the commissioner. The group meets monthly, typically in the fall, winter and spring, and breaks for the three months of summer. Prior to the distribution of the abutter survey, the DCR asked QWAC to review and comment on the draft survey. The group spent significant time of one meeting discussing the survey. The majority of the comments submitted by QWAC were incorporated into the survey.

Ware River Watershed Advisory Committee (WRWAC)

In 1995 the Massachusetts legislature passed an act creating the Ware River Watershed Advisory Committee (WRWAC) under MGL 92 Section 114A. Effective July 1, 2003, this act was modified by MGL 92A ½, Section 14 to reflect changes due to the reorganization of MDC into DCR (see **Appendix A**). WRWAC is composed of representatives from seventeen named organizations or groups: the Massachusetts Council of Sportsmen, the Worcester County League of Sportsmen, Trout Unlimited, a rod and gun club located in the town of Barre, Hubbardston, Oakham or Rutland, a designee of the board of selectmen of each of the towns of Barre, Hubbardston, Oakham and Rutland, a representative of the historical societies in each of the towns of Barre, Hubbardston, Oakham and Rutland, a representative of the Massachusetts Wildlife Federation, a representative of the Massachusetts Audubon Society, a representative of the Sierra Club, and a representative of the Upper Ware River Watershed Association and one member from the general public. The legislation directs the committee to meet at least twice each calendar year. Typically, the WRWAC meets monthly in the fall, winter and spring with a three month break in the summer.

Before the abutter survey was distributed, the WRWAC was asked to review and comment on the survey. Comments made by the members were incorporated into the final survey before

distribution. DCR also notified the committee of the April and October workshops. Committee members attended and participated in both workshops.

Water Supply Citizens Advisory Committee (WSCAC)

Originally formed in 1977 to review a proposed diversion of the Connecticut River for water supply to the metropolitan Boston area, WSCAC conducts independent research and members organize into task forces devoted to more intensive study of particular issues. WSCAC has also developed its own public information materials and a network of volunteer expert consultants. The committee meets monthly in locations around the state.

WSCAC advises the MWRA on water conservation and watershed protection strategies. The MWRA has implemented leak repair and demand management programs, avoiding the need for river diversion. WSCAC's current focus is water quality - source protection and management of the watersheds, reservoirs and distribution system.

WSCAC's diverse membership is balanced geographically and by interest, representing source watershed communities, watershed associations, water utilities, environmental groups, business, water users, and other interested parties. WSCAC provides an ongoing source of public input for the MWRA and state agencies. The MWRA supports WSCAC with funding for office space, expenses, and a staff selected by and answerable to the committee.

4. Letters, Media Coverage and Letters to the Editor

Public input letters are included in **Appendix D**. Media coverage for the DCR's Public Access Plan update and related workshop has varied. Local newspaper coverage (e.g., *Worcester Telegram and Gazette*, *Greenfield Recorder*, and *The Sentinel*) is included in **Appendix E**. Several pieces in the media have prompted public response also included in **Appendix E**.

5. Other Meetings

DCR also held individual meetings with organizations to discuss their specific questions and concerns.

North Quabbin Woods (11/10/05)

New England Mountain Bike Association (NEMBA) – (11/15/05)

Porcupine Ridge Runners Club (11/16/05)

C. Resource Allocation Constraints

The Department of Environmental Protection's latest watershed survey report (12-22-05) contained the following quote: "MassDEP requires that any increases in public access that DCR allows as part of the new Public Access Plan does not lead to a lesser level of watershed protection. Increased activities must be sufficiently managed to prevent adverse impacts to water quality." All public access to Quabbin Reservoir Watershed land has some impacts and requires resources from DCR to minimize these impacts. The resources may be the placement of portable toilets, additional ranger patrols, or minor construction projects such as installation of gates or the creation of additional parking spaces. All these activities require staff time and may also cost money. Unless additional resources are provided to the DCR, increased public access will take staff time and resources away from OWM's main mission of water quality and resource protection. With this in mind, any new or expanded activities must be carefully planned to minimize these fiscal impacts.

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